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ABSTRACT

To examine sociological response to rural development projects requiring forced population relocation, a study was conducted of a small, rural farming community in central Ohio which had been disrupted as a result of a large scale (approximately 8,100 acres) development project. A sample of 72 subjects was taken from the affected community (37 nonrelocated families and 35 relocated families) and 50 from a nonaffected base group; relocated families were surveyed by mail and others were interviewed at home. Study variables were community alienation, community satisfaction with services, commitment to education, physical mobility, traditionalism, and community identification. Attitudes toward land acquisition and the development project were evaluated within the affected group. Findings did not support the commonly held position that rural development projects which require extensive land acquisition and subsequent relocation of resident populations result in significant fragmentation of social relationships in the affected group. The experimental group was basically not alienated from its community group, was marginally (neutral) satisfied with community services, highly committed to education, physically immobile, modernistic relative to change, and highly identified with their community. There were severe negative attitudes toward land acquisitions among the experimental relocated group members. (BRR)

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AN EVALUATION OF FORCED RELOCATION OF POPULATION AND ITS IMPACT ON COMMUNITY DEVELOPMENT

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An Evaluation of Forced Relocation of Population Due to Rural Community Development

TED L. NAPIER and CATHY J. WRIGHT[1]

INTRODUCTION

This bulletin presents the findings of a study designed to evaluate the social-psychological response of directly affected community members to community disruption. The disruptive force analyzed in this research was in the form of extensive land acquisition and subsequent population relocation by the state of Ohio for rural development purposes.

Emphasis in the study was on the attitudes of people toward various aspects of their changed community and the development project. Attitudes were selected for analysis since they should be reflective of the impact of the change upon the group. It is argued that positive attitudes will be reflective of perceived positive development impact upon the group, while negative attitudes should be reflective of perceived negative consequences for the group.

Rural areas of the state and nation are experiencing rapid social change since increasing numbers of development activities have been directed toward increasing the socio-economic viability of rural groups. Many development projects necessitate the acquisition of extensive acreage from private landowners, which in turn often requires relocation of homes and/or farm operations for many long-term residents.

The magnitude of land acquisition necessary for rural developmental projects varies from a few acres to several hundred or even thousands of acres. Small scale land acquisition associated with such activity as rural industrialization has relatively little initial disruptive impact upon the group in terms of population displacement. Few people, if any, are required to move their established homes or farms. The situation in areas affected by large scale land acquisition projects, however, is significantly different. It has been shown that there are immediate short-run consequences for the directly affected groups when large scale watersheds are constructed in close proximity to rural communities (13, 14). This bulletin is concerned with projects which require extensive land acquisition and subsequent disruption of established community groups.

Development Continuing in Rural Areas

It is highly probable that development will continue in the United States due to the commitment which Americans have to socio-economic growth. It is also quite likely that much of the development activity which necessitates acquisition of large tracts of land will occur on the urban fringes and in rural areas of the nation. This assertion is predicated upon the fact that fewer people are required to move their established homes in sparsely populated areas as compared with compacted urban communities.

The economic cost of urban properties as compared with rural properties is also an important variable in the selection of rural development site locations. The cost of urban properties is often so high that large scale development projects are not economically feasible.

Numerous studies have been conducted on the potential economic benefits which accrue to directly affected communities, regions, states, and the nation from certain types of development projects. While these studies are extremely useful for public decision making, an equally important research area is the sociological impact of the development efforts. An extensive review of the literature concerned with forced relocation of population as a product of rural development programs reveals that relatively little theory and research exists in the area of sociological response to such development activity. It is the authors' hope that this research report will partially fill this relative void.

The study consisted of a social-psychological analysis of a small, rural farming community in central Ohio which had been disrupted as a result of a large scale development project. The state obtained approximately 8,100 acres of primarily agricultural production properties for construction of a major transportation research center. The land acquisition and project construction required the relocation of numerous long-term residents and brought about many other changes within the affected area.

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THEORY FORMATION AND HYPOTHESES DEVELOPMENT

A generalization often made in the sociological literature is that change is inevitable. While this is widely accepted, the rapidity with which change occurs and the potential impact of the change greatly determines the relative response among group members experiencing the change. Some types of modifications in the group are readily accepted, while others are vigorously resisted. It is *expected*, for example, that group members will leave the group through death and that new members will be added through birth. Such changes usually do not disrupt the functionality of the group except in circumstances where a central figure such as a charismatic leader dies and the group experiences major disorganization. However, if exogenous change (generated outside of the community) is imposed upon the group which generates significant modifications of the existing social system, the response may be considerably different. The exogenous change may be perceived as having potentially significant negative consequences for the group and be resisted overtly or covertly.

Change is often identifiable within a community as a direct result of rural development, but the rapidity of acceptance of the development activity partially depends upon the magnitude of the disruption generated within the affected group as a direct or indirect function of the development activity. Certain types of development require relocation of long-term residents. Examples are major water impoundment projects, highway construction, and airport facility development. Such projects may bring new populations into the area and add impetus for others to leave the group. Each action (in-migration of new people and out-migration of long-term residents) may have significant consequences for the community. The long-term residents who were not relocated may perceive the new population as having a negative effect upon the community, thus leading to negative attitudes about the change generating forces and the development of negative perceptions of the changing community.

Long-established friendships and interaction patterns could be disrupted to the extent that the social relationships in the restructured group may no longer be satisfactory. Some members may be removed and established interaction patterns partially severed. The stimulus which changed the existing situations may not be perceived well since it was the force creating the difficulty for the group.

It has been shown that urbanization and industrialization bring about a change in the composition of rural communities (1). New members join the group and establish interaction patterns with the other group members. This suggests that long-term residents will expand their interaction patterns to include all or a portion of the new group members, which in turn suggests that adjustment is necessary for the changed group.

The new additions to the group may bring with them norms, values, beliefs, and behavioral patterns which differ significantly from the existing cultural definitions of the original community members. If the behavioral patterns of the new additions are perceived as counter to the *accepted* patterns of the group, then the potential exists for the development of negative attitudes toward the change which brought about the addition of the new group members and change perceptions relative to the community.

The long-term residents may perceive several aspects of the changing community situation as no longer meeting their perceived needs. Shopping facilities which were adequate at one time may be inadequate to meet the increased demand. Impersonal relationships may develop between store operators and customers. Sewage and water systems may be inadequate to serve additional population demands. If the development project has a recreational component, then transient population must be accommodated in the restructured interaction system.

Each of these factors could contribute to the development of negative feelings about the exogenously induced development. In essence, extensive change within a community group could lead to social disorganization and result in negative perceptions of the change. It is also quite possible that the development will enhance the socio-economic viability of the group and be perceived well (the benefits may far outweigh the costs of the project).

Confrontation Theory Revisited

Bertrand (2) observed that rapid change could lead to disorganization within community groups undergoing the rapid change. He noted that southern communities were experiencing social change as a result of exogenous forces generated by the *mass society*. His observations suggest that less rapid rates of cultural change may be more readily accepted, since the various components of the social system (community) are able to slowly adjust to the changes (accommodation takes place). A new mode of behavior or new technology may initially threaten the existing interactional or institutional patterns within established groups, but in time it will be slowly accepted. The process of acceptance will continue until the new technology or behavioral pattern becomes the norm (accepted practice) of the group. In essence, the exist-

ing values, norms, beliefs, and behavioral practices must become *accustomed* to the new idea or practice.

While it is possible that social change may be nondisruptive, the potential also exists for extensive disruption to occur within the group. If the change is introduced abruptly and must be implemented in a short period of time, the components of the community group will not have had time to accommodate to the change, thus resulting in temporary chaotic situations (unstructured situations). Another factor which must be considered is the potential significance[2] of the change. If the stimulus applied to a group brings about major modification of established patterns within a group, the degree of adjustment necessary to establish a new equilibrium will be high.

In a situation of rapid change, the potential exists for the development of negative attitudes which may be revealed in personal and/or collective estrangement from the change. The demonstrated effect of *confrontation* of the existing status quo with rapid change may be collective resistance by the affected group or fragmentation of the existing group to some greater or lesser degree. In the first situation, the community may be brought together in a common cause. If the group is fragmented, however, it may become segmented to the degree that little common identity remains.

The *confrontation theory* (2) basically posits that input of rapid change will result in initial resistance. The initial resistance will be followed by slow adaptation of the social system to the change which results in eventual acceptance.

The exogenous stimulus applied to the community under investigation was forced relocation of population due to the establishment of a transportation research center in the community. The community was subsequently subjected to the following disruptive influences:

- Land acquisition by the state from private landowners
- Relocation of long-term residents
- In-migration of individuals with much higher status than existing community members
- New residential development
- Numerous other secondary change factors such as increased demands made upon existing institutions and services (school systems, hospitals, etc.)

It was hypothesized that these changes (exogenously induced) would bring about a confrontation between the existing social order in the directly affected community and the change forces. It was reasoned that the externally induced changes would expose the existing cultural definitions to outside influence (8), which would result in the development of negative perceptions of the changing community situation among the affected group members. It was further contended that the change agent and the development project would also be perceived negatively by the affected community group, since both the project and change agent were instrumental in bringing about the changes in the community.

In essence, it was hypothesized that the affected group would develop negative attitudes toward the project, the development agency, the changed community, and the acquisition of private lands for rural development projects.

The Evolution of Alieration in a Community Under Stress

A person may develop a feeling of powerlessness[3] if he believes a proposed action will have a negative impact upon him and he is unable to prevent the potentially harmful action from taking place. A person may exhibit this powerlessness by withdrawing from society and becoming a social isolate. He may also confine his personal frustration to himself and remain a functional part of the group or he may elect to exhibit his feelings overtly by some type of anti-group activity. He may also exhibit his frustrations with combinations of these alternatives.

The personal estrangement of community members may be of little concern to a community group if the proportion of the population experiencing such feelings is very small. There are severe consequences, however, for a community group if a large proportion of the members become personally estranged. A situation which any community must attempt to avoid is estrangement of community members to the point that little social integration and/or common identity remains, since these factors are important in achieving and maintaining cooperative efforts. Without cooperation, a community group may be greatly stifled in what it may achieve.

The potential always exists for a group undergoing rapid change which is exogenously generated to become collectively estranged from each other. The community as a collectivity is commissioned to protect certain rights of its members and if the collective community (often representatives of the group) cannot fulfill this role, then the people may become estranged. This is especially true if the change is exogenously generated and imposed upon the group and if the change is perceived as having

[2]Significance is a relative term and refers to the degree to which change brings about modification in the existing social structure of the group. Some types of change affect few institutions and are of minor consequence, while others affect many and may be of major consequence.

[3]Powerlessness is a concept used to denote a lack of control in personal decision-making and self-determination in one's own actions.

potentially severe negative consequences for the group. The people, in essence, are powerless to prevent the potentially negative development activity from being implemented.

Concomitant with the feeling of powerlessness is often the development of a negative self-concept. If a person is unable to control his own destiny, then his feeling of personal worth could also be negatively affected. If action is taken which a person is unable to influence, even though he may be aware that the action will cause him grief, the potential exists that his self-concept will reflect this perceived lack of personal worth. Failure to negate some potentially undesirable action could result in the individual perceiving himself politically sterile and of little worth to himself or others.

The last concept to be discussed relative to alienation is anomie. This concept is related to the consequences of change. Anomie (normlessness) exists when a social system is changed to the point that existing normative structure is brought under severe strain. Established definitions are challenged and people do not know what behavioral patterns to use as their role model (patterns or rules to follow).

While a completely anomic state is unrealistic, some degree of normative confusion will exist in any rapid change situation. In the case under study, it is argued that some extensive normative changes will result due to the changing occupational activity, expectations of higher status in-migrants, and other factors. The changing norms should result in the development of partially unstructured situations for the community residents which would have the potential for personal estrangement from the changed cultural definitions of the community group.

The end product of the operation of these concepts is often termed *alienation* (11, 14, 19, 20, and 21). If a person is personally estranged from his reference group and its leadership, perceives himself to be of little personal worth, and sees little consensus among the group members, then he is considered alienated.

Alienation and Rural Development

The procurement of private properties for certain types of state and federal development projects through the use of eminent domain is an excellent example of the relative lack of influence of local groups in the decision-making process. Decisions of significant impact are often made by groups exogenous to the community. People may be relocated, new structures may be built, land use may be drastically altered, and numerous other secondary effects may be noted, but the local group may have relatively little involvement in the program planning.

There are logical reasons for excluding local groups from being informed of development plans, since land speculation may bid up the price of needed properties to the point where the project is no longer economically feasible. To prevent extensive speculation, the development agencies often elect to make decisions without consultation with local people who will be directly affected by the development.

There are, however, social costs associated with the noninvolvement of local people in the decision making process relative to large scale development projects. The people in communities selected for development with short-run negative consequences for a segment of the group (large land acquisition, for example) may perceive the action as being imposed upon them and feel powerless to determine their own future. The potential exists for alienation to develop and the possibility is high that significant resistance to program implementation will arise.

It is argued that such a situation exists in the community under study. The hypothesis for testing was: *Individuals within communities subjected to developmental action which results in considerable acreage being acquired for developmental purposes will exhibit higher community alienation than nonaffected community groups.*

While all members of the community subjected to development activity requiring relocation of population should be affected to some greater or lesser degree, the greatest negative impact should occur within the relocated portion of the group. The relocated segment of the affected group should be subject to all of the potentially alienating factors mentioned above, with the additional burden of household and/or farm relocation. It was hypothesized that: *The relocated portion of the affected community will exhibit significantly higher alienation scores than the nonrelocated portion of the affected group.*

Community Satisfaction and Community Change

A community group must establish some type of equilibrium (functional means of carrying out the requirements of the group) to accommodate the service needs of the group members. Provision of services is a partial function of the population size to be served and the socio-economic characteristics of the population. If the community group is scattered over a wide geographical area (low density) and is composed of rural farm residents, the services offered would be somewhat different than the services offered in urban (high density) industrial areas. A rural community may offer a limited number of services but these services may be defined by the group as being adequate to serve its needs.

Services are most often organized to meet specific needs of a group, but sudden increases or de-

creases in population size and changes in the composition (individual characteristics) of the population must be accommodated. Services must be modified to meet the newly created needs. Change in the form of forced relocation of population due to rural development may modify the perceptions people have toward the adequacy of services offered because of increasing demands for new or expanded services. Shopping facilities may have to be expanded in certain areas and decreased in others. Specialized needs, such as farm equipment or fertilizer, may be removed from the local area since the changing occupational structure makes the practice of stocking such products unprofitable. Highways may be insufficient to handle increased traffic. Existing water supplies may be inadequate to meet increasing demand. Solid waste disposal (garbage) may become a severe problem, since the existing means of disposal may not be easily expanded (new landfill areas may not be available).

Population shifts may generate new demands and increased need for more police and fire protection. Existing services may also be disrupted for some time, especially in areas in close proximity to the development project. Highways, telephone, and electrical transmission lines may have to be relocated, disrupting service. Increased density of population may necessitate the construction of central water and sewage facilities to replace once functional water wells and septic tanks or open latrines. In essence, development activity could make previously satisfactory means of providing for the group's service needs obsolete. The hypothesis for testing was: *Community groups which have been disrupted by development activity will hold less favorable attitudes about community services than nonaffected groups.*

Commitment to Education and Community Change

One of the basic values in American society is that formal education is extremely important. Since Americans value education so highly, it is doubtful that many forces would be operative to reduce this commitment. However, many factors should enhance the value placed upon education. One of these factors is rapid change. Communities establish some type of structured ways of doing things which may be changed as a result of the introduction of change in one component of the community. Values, for example, may be modified to reflect the changes which may be brought about in the community as a result of exogenously induced change. The priorities of values may be replaced by new priorities which have more functionality for the reconstructed group. Values which were operative in the past may not *fit* into the present or future and subsequently must be modified.

Forced relocation of population could serve as a stimulus for change in commitment to education (value orientation), since old established priorities may become dysfunctional and new priorities established. The land use changes which have occurred within the community affected by forced relocation of people are only a small part of the total impact of the development project on the community and region. There have been occupational shifts from production agriculture to highly skilled occupations for the region, since the in-migrants employed by the research center are highly skilled professionals or skilled workers. These new occupations require considerable formal education. It was argued that the affected group would observe the increasing need for formal education and internalize this observation (it would become a part of their value system). It was further argued that this internalization of the increased value on education would be reflected in their attitudes. It was therefore hypothesized that: *Individuals within communities affected by forced relocation of population due to development activity will exhibit a significantly higher commitment to education than nonaffected community groups.*

Physical Mobility and Community Change

Physical mobility refers to the individual's willingness and desire to leave his present community of residence. Individuals may desire to move intracommunity, but not be willing to move outside of their community. In this situation, the individual would not be defined as physically mobile.

Individuals remain within a community partially due to their belief that the community is providing for their needs. When people believe that their community can no longer provide for their needs, they tend to develop a desire to leave. Residence in a community for an extended time results in the establishment of relationships with other people and functional means of accomplishing established personal goals. When change is introduced which modifies the patterns of interaction and disrupts the functional relationships of the group, the potential exists for the development of negative attitudes about the changed community. If the community situation changes to the extent that it is no longer perceived as meeting the needs of the residents, the individuals within the group develop a feeling of estrangement from the group and exhibit this personal estrangement by the development of a desire to leave the community. The hypothesis for testing was: *Individuals within disrupted communities will exhibit a significantly higher desire to move from their changed*

community than people within nonaffected community groups. This and subsequent hypotheses are predicated upon the validity of the previously stated hypotheses that the development efforts would result in negative perception by the subject groups.

It was further hypothesized that the relocated portion of the group would exhibit a significantly greater desire to leave the community than the nonrelocated segment, since they had been physically displaced due to the development program. The relocated group should not have had sufficient time to have been reintegrated into the social relationships of the restructured community and therefore subsequent relocation away from the community may not be perceived negatively.

Traditionalistic Value Orientation and Community Change

Value orientation may be defined as the shared conviction of group members relative to the many factors they feel to be important to the group (10). It is also important to note that values among individuals may vary somewhat within groups. This means that individuals within the same group may perceive the same phenomenon in somewhat different perspectives. One person may perceive a phenomenon as good, while another perceives it as not as good.

One reason individuals within a group may hold shared values in different priorities is that members often have had different experiences with the phenomenon being evaluated. If a person has had negative experiences with some phenomenon, it is highly probable that he will develop negative perceptions of the phenomenon and it will be defined as bad or harmful. If the phenomenon under consideration is perceived as having a positive effect, it will probably be perceived as beneficial and good (assuming no normative structure is operating to forbid it being so defined). In essence, the individual develops a definition of the phenomenon based on his own experience and uses the definition to respond to the phenomenon.

In a situation of rapid change, people in the subject group may perceive the change as having negative effects or potential negative effects for them. The subject group would, therefore, reflect this negative attitude toward change by the establishment of a strong commitment to the existing situation (develop a negative attitude toward change).

Consistent with this logic, the hypothesis for testing was: *Residents of communities subjected to rapid change will exhibit a significantly higher commitment to traditionalism than nonaffected community group members.* It was further hypothesized that the relocated group will perceive the community change more negatively than the nonrelocated portion of the group and demonstrate their greater negative perceptions through stronger commitment to the status quo (opposition to change).

Community Identification and Community Change

If one assumes that community groups establish some type of functional equilibrium, then one must assume that patterns of interaction are formed which facilitate the achievement of specified goals of the groups. Continual interaction among group members encourages the formation of patterned interaction (repeated interaction) which will probably lead to sentiments of liking among the interacting group members (9). Repeated association with people will not only encourage the formation of friendships, but also the sharing of cultural definitions (norms, values, beliefs, etc.). The end product of extended periods of frequent interaction should be *commonness* or the development of the *we* feeling. These concepts refer to the feeling that specific members of the group are a reflection of the others to some degree.

Exogenous change which has the potential to fragment the group through physical displacement may not be perceived well by the subject group, since long established friends may be required to leave the area and new members added to the group. The result of this action could be a partial destruction of the *we* feeling.

Consistent with this logic, the hypothesis for testing was: *Affected community groups will exhibit significantly lower community identification than nonaffected groups.* It was further posited that within affected community groups, the relocated portion of the group will exhibit significantly lower community identification than the nonrelocated segment.

METHODOLOGY

Selection of Communities for Analysis

A rural farming community in central Ohio which had been disrupted through land acquisition by the state and population displacement was selected for analysis (the experimental group). The community[4] consisted of a rural village of approximately 500 residents and surrounding farms. The total geographical area of the community was approximately a 5-mile circumference around the development project. The delineation of the community was somewhat arbitrary, but communication with several long-term residents of the area and informal county leaders provided the basis for establishment of the boundaries. The same type of definition and delineation was

[4]Community was defined within an interactional framework rather than a political entity. For a discussion of this type of community delineation, see: Munch, Peter and Robert Campbell. 1963. Interaction and Collective Identification in a Rural Locality. Rural Sociol. 28: 18-34.

applied to the selection of a nonaffected base group which was also located in the central part of the state.

The land acquisition segment of the rural development project had been completed at the time of the data collection phase of the research. The dislocated families had been relocated in their new homesites, but construction of the transportation center had not been completed. There were approximately 100 privately owned properties acquired by the state which constituted a total of about 8,100 acres of primarily agricultural production land being transferred for development use.

To isolate the relative impact of the community disruption, a nonaffected base community group was also selected for comparative analysis. The base community was purposely selected to enhance the comparability of the two communities. The primary factor which was used in the relocation process was that no significant change must have occurred in the community within the last 10 years.

Initial selection of the base group was made from census data, but subsequent inspection of the sample characteristics of the two groups added further support to the contention that the groups were similar. Both groups were composed of long-term residents, middle-aged people of lower-middle class status. Approximately one-half of each group was involved in production agriculture. Approximately 50% of each sample was male and 50% female.

The socio-economic status measure consisted of a modification of Warner's Index of Status Characteristics (10). Since this index was composed of occupation, education, and income indicators, the sample characteristics revealed that the two community groups were comparable on these variables as well. The two communities were also approximately the same size in terms of population.

Research Design and Sample Selection

The type of research design employed in this research effort can best be described as quasi-experimental design, using the post-test only control group design (4). The design may be conceptualized symbolically as follows:

R X O_1
R O_2

where:
R = random selection of sample
X = stimulus
O = observations

A sample of 72 subjects was taken from the affected community and 50 from the nonaffected base group. The sample from the affected community group consisted of 37 nonrelocated families and 35 relocated families. The sampling procedure for the nonrelocated portion of the affected community and all of the subjects taken from the base community consisted of a systematic random sample (3).

The procedure used in sampling consisted of the selection of every fourth occupied dwelling, with the initial residence chosen at random. If the inhabitants of a chosen residence refused to participate in the research, the adjacent occupied dwelling was selected. When an interview was granted, the original sampling procedure was reinstituted.

The major portion of the relocated sample was taken by mailed questionnaire due to the difficulty of locating the group scattered throughout the community being studied. The development agency provided names and rural delivery addresses of the relocated people and the questionnaire was forwarded to them (same instrumentation used in the oral interviewing).[5]

Approximately 42% of the questionnaires were returned in usable form. Four questionnaires were returned and subsequently eliminated, since they had relocated outside of the community as it was defined in the study. Although all relocated people with the exception of the nine who had been selected in the systematic sampling (see footnote 5) were mailed questionnaires, only those completed questionnaires from individuals who had relocated within the established community boundaries were retained for analysis. Three additional questionnaires were eliminated due to incomplete data provided by the subjects. There were approximately 10% refusals in the systematic sampling procedure (oral interviewing).

Operationalization of Variables

The variables used in the study for comparative analysis were community alienation, community satisfaction with services, commitment to education, physical mobility, traditionalism, and community identification. Attitudes toward land acquisition and the development project were evaluated within the affected group. A comparative analysis was not conducted since the base group did not have knowledge of the development project.

Community alienation was defined as personal estrangement from the collective community group and the community leadership. The basic concepts

[5]The questionnaire was designed to be self-administrable. So the differential data collection techniques were deemed irrelevant to the validity of the data collection. It should also be noted that nine relocated families were interviewed during the systematic sampling of the nonrelocated portion of the affected group and comparison of their responses to those gathered by the mail method added further support to the contention that the differential data collection methodology had no impact upon the validity and/or reliability of the data. The nine relocated people who were chosen in the systematic sampling were not included in the mailing.

employed in the development of the measuring instrument were self-estrangement and powerlessness.

Commitment to education was defined as the value placed upon formal education as it related to success. The attitudinal scale was constructed about the priority given to formal education as the best means of increasing one's potential for success.

Physical mobility was defined as the desire to relocate outside of the existing interactional framework of the community. The scale was developed about the desire to leave the community and did not reflect one's ability to relocate (one may not have the resources or employment in another area which would preclude movement).

Community satisfaction was operationalized in terms of the ability of the residents to secure the various services needed to maintain the group within the interactional boundary of their community. The respondents were requested to respond to the scale items relative to their general impression about the adequacy of existing services.

Traditionalism was operationalized as the willingness of people to accept change. The basic concepts used to develop the measuring instrument were the rapidity with which change was taking place and the commitment of the respondents to established modes of behavior.

Community identification was defined as the perceived cohesiveness of the community group. Concepts of sharing, mutual concern, empathy, and friendliness formed the basis of the construct termed identification.

Attitude toward land acquisition was operationalized in terms of the perceptions held by local residents toward the use of legal means to acquire land for development by the state. The components of the land acquisition scale were: fairness, adequacy of payment, treatment by the agents, willingness to contribute to the advancement of the group even at a personal cost, provision of adequate information, and time allocated for relocation.

Attitude toward the development project was operationalized in terms of the perceived benefit which the project will have for the local community. The components used to operationalize the variable were: provision of jobs as a result of the project, pollution potential, the potential for progress as a result of the project, local benefit to be derived from the project, and justification of capital expenditures for the project.

Instrument Construction

All variables included in this study were measured by the development of attitudinal scales using Likert-type techniques (6). The scales were developed by Napier (13) and Napier and Wright (21). Numerous previously constructed scales were consulted, and items were used in the development of the various scales mentioned above (7, 15, 16, 17, 18, 19, 20). The scales were constructed, pretested, used in previous research efforts, and modified for this research effort. Construct validity was used as the validity technique for all scales. Criterion validity was also employed to test the validity of the community satisfaction and community alienation scale and the results revealed the two scales to be valid measures of the concepts measured.

TABLE 1.—Internal Consistency Item Analysis Reliability Coefficients for Selected Attitudinal Scales.*

Scale	Split-Half Correlation	Spearman-Brown Values
Community Alienation	.8962	.9453
Community Satisfaction	.6919	.8179
Commitment to Education	.6802	.8097
Physical Mobility	.8439	.9153
Traditionalism	.8061	.8926
Community Identification	.8412	.9138
Land Acquisition	.8657	.9280
Attitude Toward Development Project	.9492	.9739

*Reliability measures are for the experimental community only, but previous item analyses of the instruments were basically reproduced here. Land acquisition and attitude toward the development project scales were only administered to the experimental group.

Internal consistency item analysis provided the basis for determining the reliability of the scales. The split-half correlations and the Spearman-Brown corrected formula[6] values for the scales are in Table 1 and the scale items are in the Appendix.

The high split-half and Spearman-Brown corrected formula values in Table 1 indicate that the measuring instruments are very reliable. The measuring instruments were employed in previous research and the reliability values were basically reproduced in this research effort, adding further support that they are reliable measures.

Weighting of the Attitudinal Scales

There were five possible responses to each scale item (strongly agree, agree, undecided, disagree, and

[6]The split-half correlation is a basic test of the consistency among the even and odd-numbered items. The even-numbered items are summed and treated as X, the odd-numbered items are summed and treated as Y. A product moment correlation is calculated using the following formula:

$$\text{Split-Half Correlation} = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2][N\Sigma Y^2 - (\Sigma Y)^2]}}$$

The Spearman-Brown corrected formula is a value which predicts what the correlation would have been if the scale had not been split in half. It is calculated as follows:

$$\text{Spearman-Brown Corrected Correlation} = \frac{2\ (\text{Split-Half Correlation})}{1 + (\text{Split-Half Correlation})}$$

For further explanation, see Cleaver, P. T. 1968. Internal Item Analysis Routine. The Ohio State Univ. Data Center.

strongly disagree). The responses were weighted on a 1 to 5 range of scores and the individual scale item values were summed to provide a scale score for each respondent. Table 2 presents the possible range of scores and demonstrates how the scores may be interpreted.

Technique of Analysis

T-tests for differences between means were used to determine whether or not significant differences existed between groups. The total sample was divided into the experimental group (stimulus applied) and the base group (stimulus not operative) to test the hypotheses relative to the developmental impact upon the affected community. The experimental group was subdivided into relocated and nonrelocated subgroups to determine the effects of forced relocation as a compounding factor. The base group was compared with each of the subdivided experimental groups.

TABLE 2.—Range of Possible Scale Scores for Selected Attitudinal Scales.

Scale	Range of Scores		
Community Alienation	low alienation	20 - 100	high alienation
Community Satisfaction	low satisfaction	6 - 30	high satisfaction
Commitment to Education	high commitment	6 - 30	low commitment
Physical Mobility	high mobility	9 - 45	low mobility
Traditionalism	low traditionalism	7 - 35	high traditionalism
Community Identification	low identification	12 - 60	high identification
Attitude Toward Land Acquisition	highly positive	14 - 70	highly negative
Attitude Toward Development Project	highly positive	15 - 75	highly negative

INTER-COMMUNITY FINDINGS

Comparison of the Base and Total Experimental Group

The hypothesis for testing relative to the experimental and base groups may be summarized in the null hypothesis form as follows: *The experimental group will not be significantly different from the base group relative to each attitudinal variable.* T-tests were used to isolate significant differences between means for each attitudinal variable. A minimum significance level of .05 was established to reject the null hypothesis. The findings are in Table 3.

The findings revealed significant differences between the experimental and base group for community satisfaction, traditionalism, and community identification. The null hypothesis must be rejected for these variables. There were no significant differences for community alienation, commitment to education, and physical mobility. The null hypothesis must be accepted.

The experimental group was significantly less satisfied with the services in their community than

TABLE 3.—Comparison of Base Group with Experimental Group for Selected Attitudinal Scale Scores.

Attitudinal Scale		Base Group	Experimental Group	T-test for Difference Between Means†
Community Alienation	Sample Size	50	72	
	Mean	46.4	44.4	1.1
	Standard Deviation	9.0	11.3	
Community Satisfaction	Sample Size	50	72	
	Mean	19.4	17.7	2.2*
	Standard Deviation	3.8	4.8	
Commitment to Education	Sample Size	50	72	
	Mean	12.4	13.2	1.2
	Standard Deviation	3.4	3.8	
Physical Mobility	Sample Size	50	72	
	Mean	29.4	30.9	1.3
	Standard Deviation	6.8	5.9	
Traditionalism	Sample Size	50	72	
	Mean	17.8	20.2	3.0**
	Standard Deviation	3.3	5.5	
Community Identification	Sample Size	50	72	
	Mean	43.9	47.9	3.7***
	Standard Deviation	5.1	6.7	

†Two tailed test for significance was used to determine significance level of t-values.
*Significant at the .05 level with 120 degrees of freedom.
**Significant at the .01 level with 120 degrees of freedom.
***Significant at the .001 level with 120 degrees of freedom.

the base group. The mean scores for the two groups indicate that the experimental group was neither satisfied nor dissatisfied (basically neutral) with the services offered by the community, while the base group was more positive than negative. The stimulus apparently decreased the perception that people had of their service facilities in the experimental group. However, the people within the experimental group did not develop severe negative attitudes toward the services offered. The median possible scale score for community satisfaction was 18, which means that scores greater than 18 would indicate progressively higher positive attitudes.

Traditionalism was significantly different for the two groups. Both groups were more modernistic than traditionalistic, which means both groups were favorable to change. The median possible scale score for traditionalism was 21, indicating that scale scores less than 21 connote a modernistic (opposite of traditionalistic) orientation. While both groups were committed to change, the experimental group was less committed than the base group. This suggests that the stimulus of forced relocation had some negative effect upon the subject group and reduced their commitment to extensive change. It should be emphasized, however, that the mean scale score for the experimental group suggests that the group would consider additional change within their community. Apparently, the experimental group as a collectivity did not perceive change as occurring too rapidly in their community.

Community identification was also significantly different for the two groups. Table 3 reveals that both groups were highly identified with their community. The median possible scale score was 36 and both groups exhibited scale scores which were much higher. The experimental group was more highly identified than the base group. Apparently the effect of the external stimulus was to enhance the community identity (cohesiveness) within the experimental group. The external stimulus of forced relocation of population evidently served to unite the group into a more socially cohesive unit. Fragmentation of social relationships apparently did not occur. The data suggest that community identification may have been enhanced within the experimental group.

Comparison of the Attitudinal Findings for the Base Group and the Subdivided Experimental Groups

The experimental group was subdivided into relocated and nonrelocated subgroups and compared with the base group and with each other. The purpose of this analysis was to determine the relative impact of forced relocation as a compounding factor.

It was posited in the theory that forced relocation status (properties acquired and subsequent relocation) would act as a compounding alienation factor and lead to the development of negative attitudes. This position was tested through comparison of group mean scale scores, using t-tests to determine whether or not significant differences could be observed. The findings are in Tables 4 and 5.

The findings demonstrated that relatively few significant differences were identifiable and that little consistency existed among the significant differences observed. Eight combinations were signifi-

TABLE 4.—Comparison of Subdivided Experimental Group and Base Group Attitudinal Scale Scores.

Attitudinal Scale	Summary Statistics	Base Group	Experimental Group Nonrelocated	Experimental Group Relocated
Community Alienation	Sample Size	50	37	35
	Mean	46.4	41.9	47.0
	Standard Deviation	9.0	8.5	13.3
Community Satisfaction	Sample Size	50	37	35
	Mean	19.4	16.1	19.5
	Standard Deviation	3.8	3.8	5.3
Commitment to Education	Sample Size	50	37	35
	Mean	12.4	12.2	14.3
	Standard Deviation	3.4	3.8	3.5
Physical Mobility	Sample Size	50	37	35
	Mean	29.4	31.8	29.9
	Standard Deviation	6.8	5.8	7.9
Traditionalism	Sample Size	50	37	35
	Mean	17.8	19.4	21.0
	Standard Deviation	3.3	4.7	6.2
Community Identification	Sample Size	50	37	35
	Mean	43.9	49.6	46.2
	Standard Deviation	5.1	5.4	7.6

TABLE 5.—Significance Tests for Differences Between Means: Attitudinal Scale Scores for Base Group Compared with Experimental Relocated and Nonrelocated Groups.

Attitudinal Scale	Contrasted Groups	T-test Value†
Community Alienation	Base Group with Nonrelocated Experimental	2.4**
	Base Group with Relocated Experimental	0.2
	Nonrelocated Experimental with Relocated Experimental	1.9
Community Satisfaction	Base Group with Nonrelocated Experimental	4.0****
	Base Group with Relocated Experimental	0.1
	Nonrelocated Experimental with Relocated Experimental	3.1***
Commitment to Education	Base Group with Nonrelocated Experimental	0.3
	Base Group with Relocated Experimental	2.5**
	Nonrelocated Experimental with Relocated Experimental	2.4**
Physical Mobility	Base Group with Nonrelocated Experimental	1.8
	Base Group with Relocated Experimental	0.3
	Nonrelocated Experimental with Relocated Experimental	1.1
Traditionalism	Base Group with Nonrelocated Experimental	1.8
	Base Group with Relocated Experimental	2.8***
	Nonrelocated Experimental with Relocated Experimental	1.2
Community Identification	Base Group with Nonrelocated Experimental	5.0****
	Base Group with Relocated Experimental	1.6
	Nonrelocated Experimental with Relocated Experimental	2.2*

†Two tailed test of significance was used to determine significance level of the t values.
*Significant at the .05 level.
**Significant at the .02 level.
***Significant at the .01 level.
****Significant at the .001 level.

cantly different at the .05 level of a total of 18 possible combinations. The differences were not confined to the relocated or the nonrelocated group. Three of the attitudinal variables were significantly different intra-community, while five were significantly different on an inter-community comparison basis.

Community Alienation and Community Disruption

The previously presented theory basically posited that community groups disrupted by exogenous change forces will respond by becoming alienated from their community group and that the relocated people will react more adversely than the nonrelocated people. Tables 4 and 5 show that this theoretical position was not supported.

The possible range of alienation scores was 20 to 100, with a median score of 60 (scores above 60 would indicate progressively higher degrees of alienation). All community groups exhibited collective scores well below this value, which means that all groups were well integrated (opposite of alienated). Tables 4 and 5 reveal that both the relocated and nonrelocated experimental groups deviated from the expected pattern. It was hypothesized that they would be more alienated, which was not true. In fact, the nonrelocated experimental group exhibited less alienation than the base group. The findings strongly suggest that exogenous threat served to enhance the integrativeness of the nonrelocated group. It is interesting to note that the disruption did not serve to collectively alienate the relocated portion of the experimental group. However, the rather high standard deviation among the relocated portion of the experimental group should be noted. This indicates considerable variation within the group relative to the others, which suggests that some people within the relocated experiment group were highly alienated.

With these findings, the authors concluded that the stimulus of forced relocation did not produce severe alienation among the experimental groups. It was also concluded that being physically displaced did not serve as a compounding alienating factor. The mean scores suggest that the total community group was highly integrated and that it is highly probable that the stimulus may have enhanced integration slightly. The hypotheses related to alienation were not supported in terms of anticipated direction, even though some significant differences were noted.

Community Satisfaction and Community Disruption

The data in Tables 4 and 5 also show that the nonrelocated portion of the experimental group was significantly different than the other two in terms of community satisfaction, while the relocated group

was not significantly different than the base group. The mean scores reveal that the base group and the relocated experimental groups were more favorable toward the services offered in their communities than the nonrelocated experimental group. If the assumption is made that the nonrelocated segment of the experimental group was initially no different from the other groups, then it must be concluded that they changed their attitudes about the adequacy of services provided in the community. The hypotheses relative to community satisfaction were supported in terms of the nonrelocated group, but repudiated relative to the relocated portion of the experimental group. Apparently relocation status did not bring about major shifts in attitudes toward services in the relocated portion of the affected group.

Commitment to Education and Community Disruption

The findings partially supported the theoretical position offered earlier about commitment to education. All groups exhibited a very high commitment to formal education, which was anticipated. The median possible scale score was 18 and scale values less than the median score indicate a positive commitment to education.

The data in Tables 4 and 5 demonstrate that the relocated segment of the experimental community had a less positive commitment to education than either of the other groups. This finding was contrary to the anticipated direction of the change. The nonrelocated portion of the experimental group was not significantly different than the base group. Therefore, the hypothesis relative to the nonrelocated portion of the group was not supported.

The authors must conclude that forced relocation of population tended to have a negative effect upon the relocated portion of the total experimental group relative to commitment to education.

Physical Mobility and Community Disruption

The findings for physical mobility did not reveal any significant differences among the groups studied. The findings basically repudiated the hypotheses relative to physical mobility. Without exception, the various groups exhibited a strong desire to remain in their communities. The median possible scale score was 27, and higher scores indicate a progressively stronger desire to remain in the community. All groups had mean scale scores well above the median possible score. The findings for physical mobility suggest that community disruption in the form of forced relocation of population due to rural development did not result in the formation of strong desires to leave the community among those people who remained in the restructured group.

Traditionalism and Community Disruption

The data in Tables 4 and 5 reveal that the groups studied had a more modernistic than a traditionalistic orientation. The hypothesis relative to traditionalism, however, appears to have some validity since the relocated portion of the affected group had a significantly lower commitment to modernism (more traditionalistic). While all of the groups were on or above the median possible scale score of 21, the affected groups exhibited less of a commitment to change (modernism) than the base group.

The findings suggest that the stimulus applied to the community had an adverse effect upon the relocated portion of the community in terms of their perception of the need for change. This finding suggests that rural development which may be attempted in the affected community in the future will encounter additional resistance, particularly among those people who had been displaced by the transportation development project. This is assuming that the future development would result in some significant consequences for the community group. It must be concluded that the stimulus had some negative effect upon the subject group in terms of traditionalism as it was operationalized in this research effort.

Community Identification and Community Disruption

The data in Tables 4 and 5 suggest that community identification was affected by the stimulus of forced relocation. The base group was significantly different than the nonrelocated experimental group, but not significantly different than the relocated portion of the affected group. It is interesting to note, however, that the community identity was enhanced

TABLE 6.—Summary Statistics for the Analysis of Variance: Attitudes Toward Land Acquisition Compared with Relocated Status.

Treatment Group	Experimental Group Nonrelocated	Experimental Relocated	F-Ratio
Sample Size	37	35	7.4*
Mean	44.6	52.1	
Standard Deviation	11.3	11.9	

*Significant at the .01 level with (1,70) degrees of freedom.

TABLE 7.—Summary Statistics for the Analysis of Variance: Attitudes Toward the Development Project Compared with Relocated Status.

Treatment Group	Experimental Group Nonrelocated	Experimental Relocated	F-Ratio
Sample Size	37	35	4.9*
Mean	46.6	53.9	
Standard Deviation	12.9	14.8	

*Significant at the .05 level with (1,70) degrees of freedom

in the nonrelocated experimental group. If the base group's attitudes are assumed to be representative of other nonexperimental communities with comparable characteristics, then it must be concluded that forced relocation increased community identity, at least among some segments of the disrupted group.

Inspection of the mean scores for the various groups reveals that all groups were highly identified with their community. The median possible scale score was 36 and scores above the median indicate progressively stronger community identity. Although all of the people are highly identified with their groups, it is interesting to note that the nonrelocated group was significantly more identified than the others. Apparently the impact of forced relocation served to further enhance the social cohesiveness (community identity) of the nonrelocated portion of the affected group, but did not serve to adversely affect the cohesiveness of the relocated group.

Community Attitudes Toward Land Acquisition and the Development Project

Since no exogenous change of the type studied had occurred in the base group community, it was not possible to compare the land acquisition attitudes held by people within the experimental group and the base group. Rather than ignore this potentially fruitful research area, it was decided to compare the relocated and nonrelocated groups with each other on a one-shot case study design basis (4).

The design can be conceptualized as follows:

X O where: X = stimulus and O = observation

The experimental group was subdivided in the same manner as in the previous analysis (relocated and nonrelocated) and one-way analysis of variance techniques were applied to the grouped data. A minimum acceptable significance level was established at the .05 level. The findings for the attitudes toward land acquisition are in Table 6 and the findings for attitudes toward the development project are in Table 7.

The basic hypothesis for testing relative to the land acquisition variable was that the relocated group would exhibit significantly more negative attitudes than the nonrelocated group and that both groups would oppose land acquisition by the state. The analysis of variance findings in Table 6 empirically demonstrate that both theoretical positions were supported. The possible median scale score was 42, with higher scores indicating more negative attitudes. Both groups exhibited more negative than positive attitudinal scores, but the relocated group would be defined as quite negativistic. It should be noted, however, that the nonrelocated group was quite close to the neutral score of 42.

While data do not exist to test the impact of the stimulus upon the group relative to their attitudes toward land acquisition through comparative analysis (experimental vs. base group comparision), the data strongly indicate that relocated status had a significant role to play in the development of more negative attitudes. The data also indicate that development projects which require extensive land acquisition in the future will probably be met with severe opposition in the community studied. This is based on the assumption that the same procedures used in the land acquisition for the research center would be used and the development project would have significant consequences for the affected group.

Apparently the relocated group perceived the relocation due to land acquisition in very negative terms. While the relocation did not adversely affect several of the community related variables, the findings related to land acquisition strongly suggest that there were severe negative consequences for the subject group as a direct result of the land acquisition and forced relocation of people.

Attitudes Toward the Development Project

The findings for attitudes toward the development project are presented in Table 7 and demonstrate that there were significant differences between the relocated and nonrelocated groups. The basic hypothesis for testing was that the relocation portion of the affected group would exhibit the most negative attitudes toward the project but that the nonrelocated group would also be negativistic toward the project. The findings in Table 7 basically supported both of these positions, since the mean scale scores for both groups were higher than the median possible score of 45. It should be observed that the nonrelocated group exhibited a mean attitudinal scale score close to the neutral position. The relocated group exhibited highly negative attitudes toward the project. It is highly probable that the relocated group would have perceived many types of projects negatively, since they were the recipients of the major portion of the difficulties associated with the project.

SUMMARY AND CONCLUSIONS

The research findings did not support the commonly held position that rural development projects which require extensive land acquisition and subsequent relocation of resident population will result in significant fragmentation of the social relationships in the affected group. The basic contention that community disruption will result in the development of negative attitudes about the changing community among the experimental group members was basically repudiated. The experimental group was basically not alienated from its community group, marginally (neutral) satisfied with community services, highly committed to education, physically immobile, modernistic relative to change, and highly identified with their community. These characteristics do not suggest that the perceptions of the group's changed community were anything less than positive.

The findings revealed some significant differences among the groups analyzed, but the differences were most often differences in degree of positivism rather than polarized positions of positive-negative attitudes. While the subdivided experimental groups differed on several attitudes, the differences were in terms of positive attitudes rather than negative attitudes. Few of the findings relative to perceptions of the community tended to support the contention that rural development activity resulted in severe negative attitudes for the experimental group. The data suggest, however, that community cohesiveness (community identification) and community integration (community alienation) were probably enhanced for a portion of the affected group. There are certain theoretical underpinnings for this position, since stressful situations could generate the collective sharing of problems and reinforce the common identity of the group. In this regard, the stimulus of forced relocation served to enhance the community situation if one defines integration and social cohesion as good.

In the context of the perceptions relative to the community as it was defined, the authors must conclude that relatively little negative change could be observed. One caution is offered in that only those relocated group members who remained within the interactional boundary of the community were included in the analysis. Those who had extremely negative attitudes may have left the area. Those who chose to remain, however, constitute the restructured group and analysis of the restructured group was the objective of the research effort (determine the effect of exogenous change upon a restructured community group).

The findings relative to attitudes toward land acquisition revealed severe negative attitudes among the experimental relocated group members. While the nonrelocated group was not severely negative, it did not support the land acquisition policies and procedures used in securing properties for the research center. The relocated segment of the group was quite negativistic, suggesting that some major problems exist for affected group members which are not associated with the social and social-psychological components of the community. Since the community was perceived well and land acquisition was perceived very negatively, the authors must conclude that there are negative consequences for subject groups (members of communities affected by forced relocation) which are not associated with interpersonal relationships or the services offered in the community. The negative consequences for the affected group members may be economic or psychological in nature, rather than associated with the changing community *per se*, but the negative consequences were clearly operative or the attitudes would not have been so negative.

The attitude toward the research center was also quite negative for the experimental relocated group and basically neutral to slightly negative for the nonrelocated group. Evidently the stimulus for change was not perceived well. The affected group apparently did not anticipate much good coming to the reconstructed community as a result of the project being located there. The local people basically indicated that the community would have been better if the research center had been located elsewhere. This adds further support to the conclusion that unidentified hardships were placed upon the subject community as a result of this rural development project. The negative attitudes exhibited toward the research center, however, were not projected upon the community. In essence, the findings suggest that rural development activity such as the project under study may have some significant potential negative effects upon the group, but that the negative effects are not necessarily associated with the changing community.

The findings relative to attitudes toward land acquisition and the research center suggest that relocation status (being relocated) may be the major determinant of attitudes toward development activity which require relocation of people. If the negativism is only a function of being relocated, then little can be done to resolve this problem since some development projects require that people move. The only means of avoiding negative impact would be to construct such projects in nonpopulated areas, which is probably not feasible in many instances. A second alternative would be to adequately compensate people for the social costs (inconvenience and personal disorganization) associated with forced movement. This would be especially true if one group must face new problems so that others may benefit

from the increased socio-economic viability of the development project.

It is also possible that relocation status may be spuriously related to the dependent variables of attitudes toward the land acquisition and project. It is interesting to note that the items included in the two project-associated scales emphasized policy and procedures used in land acquisition, as well as anticipated returns to the community group as a result of the project. The authors suggest that the negativism associated with forced relocation due to development activity may not be great resistance to physical displacement, but rather resistance to the procedures employed in the land procurement.

The experimental group apparently saw relatively little benefit being derived by the community from the location of the project close to them (the nonrelocated also were not positive). This suggests that the experimental group was forced to endure change without perceiving that benefits would accrue to the group as a result of the development.

The second point to be made is that the land acquisition scale emphasized the attitudes toward land acquisition policy and practice. The people in the community perceived these policies and practices negatively. The relocated portion of the group was most closely associated with this aspect of the project and reacted quite negatively. It is quite possible that land acquisition policy and project implementation served to alienate people from the project and change agent. If people feel they have not been treated fairly, then one could not expect them to be favorable to the stimulus which generated the problems for them.

If the problem of local group acceptance of rural development projects is closely associated with land acquisition policy and is associated with the implementation procedures used, then much could be done to resolve the negativism often associated with forced relocation of population. The policies and implementation procedures could be modified to become more humanistic (feelings of identity and empathy for the dislocated people) in nature. Developmental agencies may be pleasantly surprised with the acceptance of development activity if local people could be more extensively informed of the benefits to be derived from projects (local, regional, state, or national) which require that some members suffer some temporary discomfort. It is quite possible that increased acceptance of exogenous change in the form of rural development could be achieved if land procurement policies were carefully reconsidered. It should also be noted that all good efforts to be *humanistic* in terms of policy formation may be negated by land procurement personnel who are not knowledgeable of interpersonal relations. Perhaps agencies which employ eminent domain techniques for land acquisition should place considerably more training emphasis upon human relationships. Perhaps procurement agents are in need of sociological and social-psychological training to facilitate the conduct of their activity. A little human kindness and courtesy, as well as fairness in economic negotiations, may have tremendous returns.

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APPENDIX—ATTITUDINAL SCALES

Community Alienation Scale

I feel fairly well adjusted to this community.
I definitely like this community.
This community fulfills most of my needs.
Most of the leaders of this community are concerned about me as a person.
Most people in this community cannot be trusted.
I would associate with most people in this community.
I feel fairly well satisfied with this community.
I am not important as a person in this community.
I would prefer to live in another community.
Most elected officials cannot be trusted.
I do not believe this community will prosper.
Most of the leaders of this community understand the problems of the people.
This community is a good place to live.
I am proud to be a member of this community.
The community does not provide for my needs very well.
Few of my neighbors are concerned about me as a person.
Most of the leaders of this community respond to the needs of the community members.
I do not feel at home in this community.
Most people in this community work to make the community a better place to live.
Few people in this community care what happens to the other members of the community.

Community Satisfaction Scale

Most people are not able to buy the things they need in the stores in this community.
The services of this community basically satisfy my needs.
We often have to go to surrounding towns to get the things we need.
Basically, the services in this community are very poor.
Most people have to do without many services in this community.
I can get most of the things I need in this community or in stores close by.

Commitment to Education Scale

Education is really not worth the effort.
Education beyond high school is a necessity for success.
Obtaining an education is the best way to get ahead in this world.
People should not be so concerned about improving themselves.
My children's occupation will probably be better than mine (or my husband's).
Education is not as important as most people think it is.

Physical Mobility Scale

I do not ever wish to leave my present home community.
I would find it difficult to feel at home in another community.
If I could afford to move from this community, I would leave.
When I move, I will move to another place in this community.
I do not want to leave this area.
I would like to move from this community.
I would enjoy moving to another area.
I would not move very far, even If I could get a better job.
I would not want to move more than 25 miles from this community.

Traditionalism Scale

Most of the changes in this community have come too slowly.
What this community needs is more change.
Most old-fashioned ideas hold back progress.
Most people must give up the old ways of the past if this community is to progress.
Change is coming too fast in this community.
Most modern ways of doing things bring progress to the community.
Community progress is more important than living by the ways of the past.

Community Identification Scale

I know most people in this community quite well.
The people in this community are like one big happy family.
I am concerned about what happens to the people in this community.

Most people in this community are friendly to my family.
I am often willing to help my neighbors when they are in need of assistance.
I feel that I have never really been accepted by the people in this community.
Many people in this community are unfriendly.
I take pride in the success of a neighbor.
When a neighbor needs help in a job, I am happy to lend a hand.
I often share tools with my neighbors.
I do not feel that I am wanted in this community.
When someone leaves this neighborhood, nearly everyone feels a loss.

Attitude Toward Land Acquisition Scale

The state should provide more information regarding available housing in the area when people are forced to relocate.
The state gave most relocated people enough time to find housing and to move (from the research center area).
The state paid a fair price for the properties purchased for the research center.
The state should not have the right to require people to move for such things as the research center.
The state was fair in its dealings with people who had to move from the research center area.
More money for the acquired property would have made the situation better for those people required to move.
The state agents for land acquisition were courteous to the people most of the time.
The state did not give the people in this community enough information about the research center project before the land was acquired.
The state practically stole the property needed to build the research center.
I would be (or was) willing to sell my property so the community as a whole would prosper.
I would (or did) not object to selling my property to the state for the research center.
The state paid too much for the lands required for the research center.
The loss of my property to the research center has placed a financial burden upon me.
The state treated everyone fairly in the acquisition of the properties needed for the research center.

Attitude Toward Development Project Scale

The research center will provide many jobs to local people.
The research center has made this community a better place in which to live.
The research center is a valuable addition to this community.
The research center will bring progress to this community.
The research center's activities will pollute our streams.
The sound coming from the research center will not be a major problem for the community surrounding the center.
The research center should have been located in another area.
The people in this community should be willing to change to get the increased economic security of the research center.
The research center was not needed here.
The research center will not benefit the local community much.
The people in this community should have prevented the research center from being located here.
The costs of the research center can be justified.
The research center is a nuisance in our community.
Everyone in the community should do whatever is necessary to make the research center a success.
The advantages brought to the community by the research center do not offset the disadvantages.

The State Is the Campus for Agricultural Research and Development

Ohio's major soil types and climatic conditions are represented at the Research Center's 13 locations. Thus, Center scientists can make field tests under conditions similar to those encountered by Ohio farmers.

Research is conducted by 15 departments on more than 6500 acres at Center headquarters in Wooster, nine branches, Green Springs Crops Research Unit, Pomerene Forest Laboratory, and The Ohio State University.

Center Headquarters, Wooster, Wayne County: 1953 acres

Eastern Ohio Resource Development Center, Caldwell, Noble County: 2053 acres

Green Springs Crops Research Unit, Green Springs, Sandusky County: 26 acres

Jackson Branch, Jackson, Jackson County: 344 acres

Mahoning County Farm, Canfield: 275 acres

Muck Crops Branch, Willard, Huron County: 15 acres

North Central Branch, Vickery, Erie County: 335 acres

Northwestern Branch, Hoytville, Wood County: 247 acres

Pomerene Forest, Laboratory, Keene Township, Coshocton County: 227 acres

Southeastern Branch, Carpenter, Meigs County: 330 acres

Southern Branch, Ripley, Brown County: 275 acres

Western Branch, South Charleston, Clark County: 428 acres